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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/846,889 | 05/01/2001 | Thomas P. Feist | 08CN08803C | 5322 |

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| EXAMINER |
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BERNATZ, KEVIN M

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| ART UNIT | PAPER NUMBER |
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1773

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/846,889

Applicant(s)

FEIST ET AL.

Examiner

Kevin M Bernatz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11, 12, 14.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Examiner's Comments

1. The examiner notes that claim 55 was omitted. As such, claims 56 – 61 have been renumbered as claims 55 – 60, and these latter claim numbers will be referred to throughout this action.

Response to Amendment

2. Amendments to the specification and claim 60, filed on June 30, 2003, have been entered in the above-identified application.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title does not convey any suggestion as to the improvement over the art that applicants consider as their invention. A suggested change would be to add "With a Substrate Including at Least One Plastic Resin Portion" after "Media".

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Claim Rejections - 35 USC § 103

5. Claims 1, 5 – 7 and 11 - 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landin et al. ('774) for the reasons of record as set forth in Paragraph No. 16 of the Office Action mailed on March 27, 2003 (Paper No. 10). Evidentiary art is provided in Paragraph 32 of the above identified prior office action.

6. Claims 2, 8 – 10 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landin et al. as applied above, and further in view of Hirata et al. ('017) for the reasons of record as set forth in Paragraph No. 17 of the Office Action mailed on March 27, 2003 (Paper No. 10).

Regarding claim 60, Hirata et al. teach adding surface features meeting applicants' claimed limitations to the substrate for landing zone texture, servo tracking or data patterns (*Figures 8A – 8C; col. 6, lines 5 – 26; and col. 14, lines 5 – 32*). It would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of Landin et al. to include surface features meeting applicants' claimed limitations as taught by Hirata et al. in order to provide landing zone texture, servo tracking or data patterns.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Landin et al. as applied above, and further in view of Yamashita et al. ('457 B2) as set forth in Paragraph No. 18 of the Office Action mailed on March 27, 2003 (Paper No. 10).

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8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Landin et al. as applied above, and further in view of Wu et al. ('422) as set forth in Paragraph No. 19 of the Office Action mailed on March 27, 2003 (Paper No. 10).

9. Claims 1, 5 – 7 and 11 – 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '921 A in view of Landin et al. ('774) as set forth in Paragraph No. 20 of the Office Action mailed on March 27, 2003 (Paper No. 10). Evidentiary art is provided in Paragraph 32 of the above identified prior office action.

10. Claims 2, 8 – 10 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '921A in view of Landin et al. as applied above, and further in view of Hirata et al. ('017) for the reasons of record as set forth in Paragraph No. 21 of the Office Action mailed on March 27, 2003 (Paper No. 10).

Regarding claim 60, Hirata et al. teach adding surface features meeting applicants' claimed limitations to the substrate for landing zone texture, servo tracking or data patterns (*Figures 8A – 8C; col. 6, lines 5 – 26; and col. 14, lines 5 – 32*). It would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of JP '921 A in view of Landin et al. to include surface features meeting applicants' claimed limitations as taught by Hirata et al. in order to provide landing zone texture, servo tracking or data patterns.

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP '921 A in view of Landin et al. as applied above, and further in view of Yamashita et al. ('457 B2) as set forth in Paragraph No. 22 of the Office Action mailed on March 27, 2003 (Paper No. 10).

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP '921 A in view of Landin et al. as applied above, and further in view of Wu et al. ('422) as set forth in Paragraph No. 23 of the Office Action mailed on March 27, 2003 (Paper No. 10).

13. Claims 1, 4 – 7, 11 – 31, 33 – 36, 39, 42, 45, 46, 48, 51 – 53 and 56 - 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang ('964 B1) as set forth in Paragraph No. 24 of the Office Action mailed on March 27, 2003 (Paper No. 10). Evidentiary art is provided in Paragraph 32 of the above identified prior office action.

14. Claims 2, 8 – 10 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang as applied above, and further in view of Hirata et al. ('017) for the reasons of record as set forth in Paragraph No. 25 of the Office Action mailed on March 27, 2003 (Paper No. 10).

Regarding claim 60, Hirata et al. teach adding surface features meeting applicants' claimed limitations to the substrate for landing zone texture, servo tracking or data patterns (*Figures 8A – 8C; col. 6, lines 5 – 26; and col. 14, lines 5 – 32*). It would therefore have been obvious to one of ordinary skill in the art at the time of the

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applicant's invention to modify the device of Chang to include surface features meeting applicants' claimed limitations as taught by Hirata et al. in order to provide landing zone texture, servo tacking or data patterns.

15. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang as applied above, and further in view of Yamashita et al. ('457 B2) as set forth in Paragraph No. 26 of the Office Action mailed on March 27, 2003 (Paper No. 10).

16. Claims 32, 37, 38, 40, 41, 43, 44, 47, 49, 50, 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang as applied above, and further in view of Landin et al. ('774) as set forth in Paragraph No. 27 of the Office Action mailed on March 27, 2003 (Paper No. 10).

17. Claims 1, 5 – 7 and 11 – 30, 32, 33 and 37 – 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otada et al. ('817 A) in view of Landin et al. ('774) as set forth in Paragraph No. 28 of the Office Action mailed on March 27, 2003 (Paper No. 10). Evidentiary art is provided in Paragraph 32 of the above identified prior office action.

18. Claims 2, 8 – 10 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otada et al. in view of Landin et al. as applied above, and further in

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view of Hirata et al. ('017) for the reasons of record as set forth in Paragraph No. 29 of the Office Action mailed on March 27, 2003 (Paper No. 10).

Regarding claim 60, Hirata et al. teach adding surface features meeting applicants' claimed limitations to the substrate for landing zone texture, servo tracking or data patterns (*Figures 8A – 8C; col. 6, lines 5 – 26; and col. 14, lines 5 – 32*). It would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of Otada et al. in view of Landin et al. to include surface features meeting applicants' claimed limitations as taught by Hirata et al. in order to provide landing zone texture, servo tracking or data patterns.

19. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otada et al. in view of Landin et al. as applied above, and further in view of Yamashita et al. ('457 B2) as set forth in Paragraph No. 30 of the Office Action mailed on March 27, 2003 (Paper No. 10).

20. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otada et al. in view of Landin et al. as applied above, and further in view of Wu et al. ('422) as set forth in Paragraph No. 31 of the Office Action mailed on March 27, 2003 (Paper No. 10).

Response to Arguments

21. The rejection of claims 1 - 59 under 35 U.S.C § 112 – 1st Paragraph

The above noted rejection has been withdrawn in view of applicant(s) arguments, which have been found persuasive. Specifically, applicant(s) argue that the claims are properly enabled given the as-filed disclosure.

22. The rejection of claims 1 - 59 under 35 U.S.C § 112 – 2nd Paragraph

The above noted rejection has been withdrawn in view of applicant(s) arguments, which have been found persuasive. Specifically, applicant(s) argue one of ordinary skill in the art would have been readily appraised of the scope of the claims when read in view of the as-filed disclosure.

23. The rejection of claims 1,3,5,6,11-31,33,34 and 37 - 58 under Double Patenting in view of Application '743 and Yamashita et al.

The above noted rejection has been withdrawn in view of applicant(s) arguments, which have been found persuasive. Specifically, applicant(s) argue that the claims of the present application and the '743 application have been subject to a previous restriction, and are hence not subject to double patenting. The Examiner has reviewed the prior restriction requirement and acknowledges the difference in the statutory subject matter of the two applications, and has therefore withdrawn the double patenting rejection.

24. The rejection of claims 1 - 59 under 35 U.S.C § 103(a) – Landin et al., either alone or in view of various references

The rejection of claims 1 – 59 under 35 U.S.C § 103(a) – JP ‘921 A in view of Landin et al., either alone or in view of various additional references

The rejection of claims 1 - 59 under 35 U.S.C § 103(a) – Chang, either alone or in view of various references

Applicant(s) argue(s) that there is no evidence as to why one of ordinary skill in the art would seek to control the properties of the substrate to within applicants' claimed limitations. The examiner respectfully disagrees.

In Paragraph 32 of the Office Action mailed March 27, 2003 (Paper No. 10), the Examiner has supplied a large list of references which teach the importance of controlling the various claimed properties for media used for magnetic recording. To clarify the rejections, the Examiner has positively recited these references in the basis of the rejections to better illustrate where the Examiner is drawing his support for the modification of the known cause-effective variables.

Applicants further argue that “the use of inherency to reject a claim as obvious is not proper”, thereby rendering the above rejections improper. In addition, applicants refute the Examiner's position of the claimed edge lift height and axial displacement peak being necessarily present in the prior art products. The Examiner respectfully disagrees.

First, the Examiner notes that the rejection of record relies upon the position that a property would necessarily be present, not “inherent”, as argued by applicants.

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Second, the Examiner notes that an "edge lift height" and an "axial displacement peak" are functional properties which *are necessarily possessed by each and every recording medium substrate*. The Examiner acknowledges that the exact *values* of these properties will vary depending on the specifics of the substrate, but presently there is no evidence of record that a composite substrate comprising at least one plastic resin portion will not necessarily result in properties meeting applicants' claimed limitations. Finally, the Examiner notes that the Examiner has also provided motivation to optimize the property to within applicants' claimed ranges, even if evidence is provided which demonstrates that the claimed and prior art products do not necessarily possess the same value of these functional properties.

Furthermore, applicants argue that the areal recording density is a property of just the medium and must be given patentable weight. The Examiner respectfully disagrees.

As stated in Paragraph 32 of the Office Action mailed on March 27, 2003 (Paper No. 10), Hartog et al. ('542), Tenhover et al. ('403) and Annacone et al. ('045) all teach that the areal recording density is a function of more than just the medium. The Examiner notes that the track width and track density are a function of the magnetic head, with the specifics of the head and the medium-head interface being critical for determining how close the magnetic bits *can* be written, how close the magnetic tracks *can* be recorded without cross-talk, etc. As such, the areal recording density is not a property solely of the medium and is therefor not further limiting in so far as the structure of the medium is concerned.

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Finally, applicants argue that Yamashita et al. is not analogous art since Yamashita et al. is directed to a "floppy" disk, which "is a different type of media and is not indicative or representative of the media of the present application or even of Landin et al.". The Examiner respectfully disagrees.

In response to applicant's argument that Yamashita et al. is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Yamashita et al. is both in the field of endeavor (magnetic recording media) and is also pertinent to recording and reproducing information from storage media, in general. As such, the Examiner deems that the teaching that storage media can be rotated at variable speeds is pertinent to all storage media applications.

Conclusion

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action, i.e. the inclusion of claim 60 in the rejections already of record in Paper No. 10. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M Bernatz whose telephone number is (703) 308-1737. The examiner can normally be reached on M-F, 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on (703) 308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



KMB
September 13, 2003



Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700